ABSTRACT OF THE DISCLOSURE

A heterodyne optical signal analyzer (HOSA) permits accurate reconstruction of an optical input signal (Es) in the time domain. In one embodiment, a vector representation of the light is used to account for two polarization states of the optical signal. The components of a heterodyne optical signal analyzer (10), including optical couplers (12), all have errors and offsets. For example, optical power detectors (16) are very sensitive to changes in polarization of the optical signal (Es) and of the reference signal (Er). Several HOSA calibration procedures including detector calibration, vector calibration, and reference signal calibration are described.

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